

5144712



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D6102-013
Job Sheet 187805



Part No: D6102-013

Job Qty: 10 ea

Part Name: Saddle Billet



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 12/17/18

Job Tracking No:

Due Date: 1/17/19

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG REV D

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	10 pcs	1/17/19	1/17/19	0.00	0.00	Purchasing		AT 12/01/14
110	Packaging	10 pcs	1/17/19	1/17/19	0.00	0.00	Packaging2		AT 12/01/14
120	QC	10 pcs	1/17/19	1/17/19	0.00	0.00	QC18		21
130	Packaging	10 pcs	1/17/19	1/17/19	0.00	0.00	Packaging3-2		DAS 09 JAN 09 2018
140	QC21-SA	10 Ea	1/17/19	1/17/19	0.00	0.00	QC21		21 9-09 JAN 15 2018

Part Op 100 - Issue P/O: 42088 b) 7.000" x 6.500" x 2.000" thick
 Descriptions: 110 - Ensure material certification is attached
 120 - Check certification to Dwg D6102 for compliance
 130 - LOCATION: MAT046

DEC 18 2018

DAS

13

9-09

X10

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6102-013P	6061-T6 7.0X6.5X2.0	10 pcs (1 ea)	100-Purchasing	5144711

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D6102-013P	10	0	0

Part Specifications

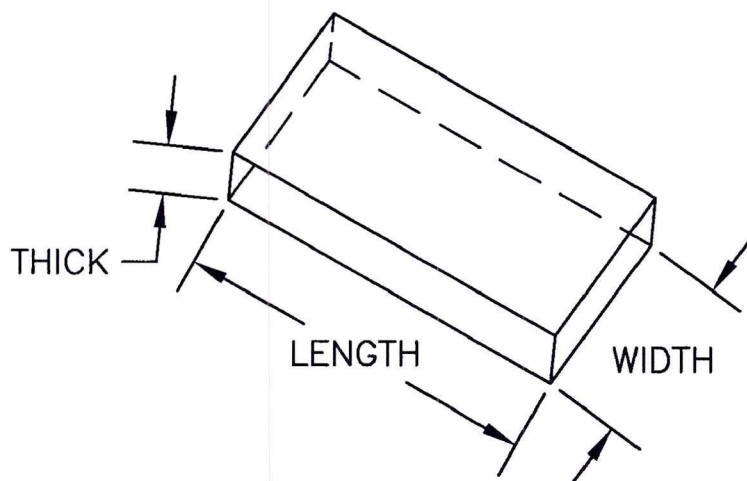
Specifications could not be found.

Plex 12/17/18 11:10 AM dart.lavoie.chantal

DART

DESIGN #	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CP	APPROVED #	DRAWING NO. D6102	Rev. D SHEET 1 OF 1
DATE 06.06.30		TITLE SADDLE BILLET, 6061	SCALE NTS
A	01.03.30	NEW ISSUE	
B	03.10.20	ADD D6102-005/-007/-009	
C	04.08.25	ADD D6102-010/-011	
D	06.06.30	ADD D6102-013	

SPECIFICATION CONTROL DRAWING

**RELEASED**

06.08.15 #

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.06/-0.00), AND GRAIN DIRECTION AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.06/-0.00.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6102-001	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.880	6.250	2.000	Along 7.880 Length
D6102-003	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.000	6.250	2.000	Along 6.000 Length
D6102-005	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	47.85	15.250	1.000	Along 47.85 Length
D6102-007	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.500	7.000	2.500	Along 7.500 Length
D6102-009	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	11.000	6.000	5.000	Along 11.000 Length
D6102-010	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.950	8.250	2.500	Along 7.950 Length
D6102-011	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	8.250	2.500	Along 6.500 Length
D6102-013	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	7.000	2.000	Along 6.500 Length

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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO042088

Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

PO No: PO042088

PO Date: 12/18/18

Due Date: 1/16/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
Phone: clavoie@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

E-MAILED
DEC 18 2018

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1 AT	187805	D6102-013P		6061-T6 7.0X6.5X2.0 AS PER DWG D6102 REV. D	Firmed	-	1/16/19	10 pcs	0 pcs 10x	10 pcs	\$31.65/pcs AT 12/01/18	\$316.50
2 AT	187806	D6103-003P		Round Alum Billet AS PER DWG D6103 REV. B	Firmed	-	1/16/19	10 pcs ✓	0 pcs 11x	10 pcs	\$60.40/pcs AT 12/01/18	\$604.00
3 AT	187840	D6104-003P		17-4 SS Roundbar 3.25"Od AS PER DWG D6104 REV. B	Firmed	-	1/16/19	10 pcs ✓	0 pcs 10x	10 pcs	\$26.70/pcs AT 12/01/18	\$267.00

Grand Total: \$1,187.50

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

CL
[Signature]

Plex 12/18/18 8:25 AM dart.lavoie.chantal

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3796667

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms		Carrier		BOL No	
09-JAN-19	ORIGIN	Prepaid		MANITOULIN		3796667-2	

Shipment Details	Final Destination Branch - TOR
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Order No	Line No	Item No	Description				
5351731	1	30509.MO	2.0000.PL.6061.T651.ALUMINUM.60.5000.144.5000 CUT RECTANGLE TO 7 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6.5")) X 6.5 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6.5")) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS 4027				
Purchase Order No		Part Number	Ordered Qty		Invoice Qty		
42088		YOUR ITEM NUMBER: D6102-013	10.00 PCS		10.00 PCS		
Details		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
122485182	KAISER ALUMINUM			10			91.3202

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Date Printed: 09-JAN-2019 02:36:11 PM

26647051



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

Reviewed by Authorized Castle Metals Representative:		Date:	Name: <i>Skalaw</i>
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JAN 09 2019



SHIP TO:

A M CASTLE & CO
14001 ORANGE AVE
P.O. BOX 1402
PARAMOUNT, CA 90723

SOLD TO:

AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

KAISER ALUMINUM

Trentwood Works

PO Box 15108, Spokane Valley WA 99215-5108

15000 E Euclid, Spokane Valley WA 99216

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4515484

CUSTOMER PO NUMBER: 463282-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 30509	SHIP RUN/LOAD: 104310/9	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1258084-1	SHIP DATE: 17-JUN-2018	ALLOY: 6061	CLAD: BARE	TEMPER: T651
WEIGHT SHIPPED: 5242 LB	QUANTITY: 3 PCS EST.	TRUCK B/L #: 2074418	GAUGE: 2.0000 IN (50.8000 MM)	DIAMETER/WIDTH: 60.500 IN (1536.7 MM)
				LENGTH: 144.500 IN (3670.3 MM)

MHU 2237798: LOT 272397B1: 1 pieces;

MHU 2238062: LOT 235610B3: 2 pieces;

Certified Specifications

AMS 4027/RevN
EN 10204-3.1/Rev2004

ASME SB 209/Rev2010

OK 6/19/14
ASTM B 209/Rev14

Test Code: 1511

Lot: 235610B3 Cast 376

Drop 11

Test Results

Ingot 2

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 3 (Min:Max)	48.4 : 49.0 (334 : 338)	43.1 : 43.7 (297 : 301)	13.7 : 14.7

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.69	0.5	0.29	0.10	1.0	0.20	0.13	0.03	0.01	0.00	TOT 0.03
Lot: 272397B1	Cast 411	Drop 15	Ingot 5								Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 5 (Min:Max)	48.2 : 48.5 (332 : 334)	43.0 : 43.7 (296 : 301)	13.8 : 14.2

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.71	0.5	0.28	0.13	1.0	0.18	0.11	0.02	0.01	0.00	TOT 0.03





CERTIFIED TEST REPORT

Serial Number

4515484

Trentwood Works

PO Box 15108, Spokane Valley WA 99215-5108

15000 E Euclid, Spokane Valley WA 99216

Phone: (800) 367-2586

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
6061												
MIN(wt%)	0.40	0.0	0.15	0.00	0.8	0.04	0.00	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS

AMC A96061-161 R 3

TEST NOTES

6061 sheet or plate certified to AMS 4025, AMS 4026, or AMS
4027 also meets applicable requirements of cancelled
specification AMS-QQ-A-250/11, Rev. A.

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- * has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- * All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- * was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- * has been thermally processed in compliance with AMS 2772, where applicable.
- * is mercury free, within the limits of detection of ASTM E1215 (<1ppm).
- * is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- * is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
- * is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
- * is free of weld repair.
- * meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

Michael Peske, PT Lab Process Engineer

SPECIFICATION CONTROL DRAWING

△ PURCHASE MATERIAL: 6061-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR 4027
OR ASTM B209

△ PART NUMBER: M6061T6S | .XXX | X | W.WWW |
THK | WIDTH |

WHERE ".XXX" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M6061T6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE = M6061T6S.500X3.500

△ PREFERRED SIZE: .XXX BY 4FT BY 8FT FOR SHEET

RELEASED
2018 MAR 13
ECS 18-665

C	ADD PLATE AND T651 SPEC	ML	17.12.13
B	REFORMAT DWG, ADD B209 SPEC (ZN D8-1), REF PAR 08-020A	CP	09.07.13
A	NEW ISSUE	RF	01.08.08
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	ML	HAWKESBURY, ONTARIO, CANADA	
CHECKED	NO	DRAWING NO.	REV. C
MFG. APPR.	JFS	M6061T6S	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	CP 47	6061-T6 SHEET/PLATE SPEC	NTS
DATE	17.12.13	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6102-013
 DATE: 19/01/14

PO / BATCH NO.: P0042088/5144712

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 10x
 QUANTITY INSPECTED: 10x
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.000"
 THICKNESS RECEIVED: 2.000"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	☒ N	
CORRECT FINISH	☒ Y	N	
CORROSION	Y	☒ N	
CORRECT GRAIN DIRECTION	☒ Y	N	
CORRECT MATERIAL PER M-DRAWING	☒ Y	N	ASTM B209
CORRECT THICKNESS	☒ Y	N	
PHOTO REQUIRED	Y	☒ N	
CORRECT REF # TO LINK CERT	☒ Y	N	H7272397B1
CORRECT MATERIAL IDENTIFICATION	☒ Y	N	
CORRECT M# ON THE MATERIAL	☒ Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> <u>9-89</u>	SIGNED OFF BY: <u>[Signature]</u>
DATE: <u>19/01/14</u>	DATE: <u>19/1/14</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in